CA score, where 30% had coronary stenting, 20% had bypass surgery , 35% had mild disease, and 15% had non obstructive lesions.

Conclusion: Negative calcium score excludes CAD in 90% of patients as confirmed by normal CTA. Coronary CTA is an important tool to detect early coronary atherosclerosis even in absence of coronary calcification.

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Effect of intracoronary (IC) transplantation of autologous bone marrow-derived mesenchymal stem cells (BMSC) in patients with advanced left ventricular systolic dysfunction

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Background: In the absence of cardiac transplantation programs and high cost of CRT-ICD in our community, large numbers of no-option HF patients (pts) for revascularization are still markedly symptomatic. IC-BMSC appears as promising option.

Methods: 33 (27 males) with chronic HF, LVEF $\leqslant$ 35 and mean age 46 y divided into 2 groups, 17 BMSC pts and 16 pts control. Both were maintained on maximum tolerated medications (follow-up 258 + 47 days). NYHA function class (NYHAFC), six minutes walking test (6MWT), LVESD, LVEDD, 2D-LVEF, systolic (S) and early-lydiastolic (E) mitral annulus velocities by TDI evaluated. BMSC were obtained and selectively IC injected.

Results: Both groups showed improvement in NYHAFC from 3 to 2, $P < 0.001$ in BMSC, $P < 0.04$ for control. 6MWT marginally improved in BMSC from 348 ± 91 to 406 ± 87 meters (m) $P < 0.06$ while no improvement was noticed in control (361 ± 47 to 336 ± 110M, PNS). LVESD

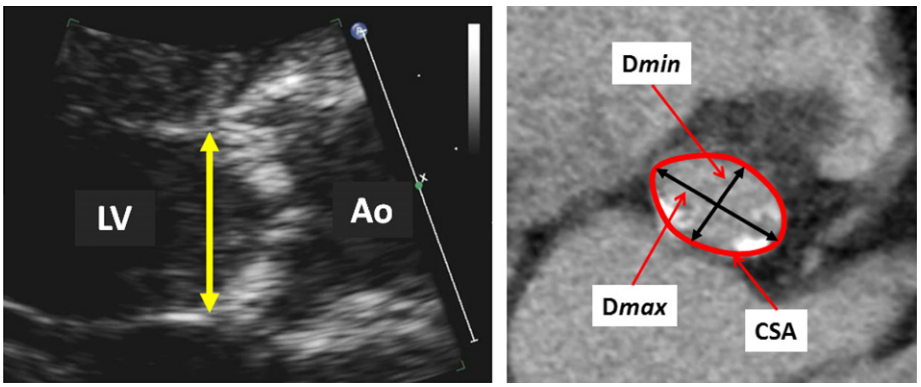

Figure 1.

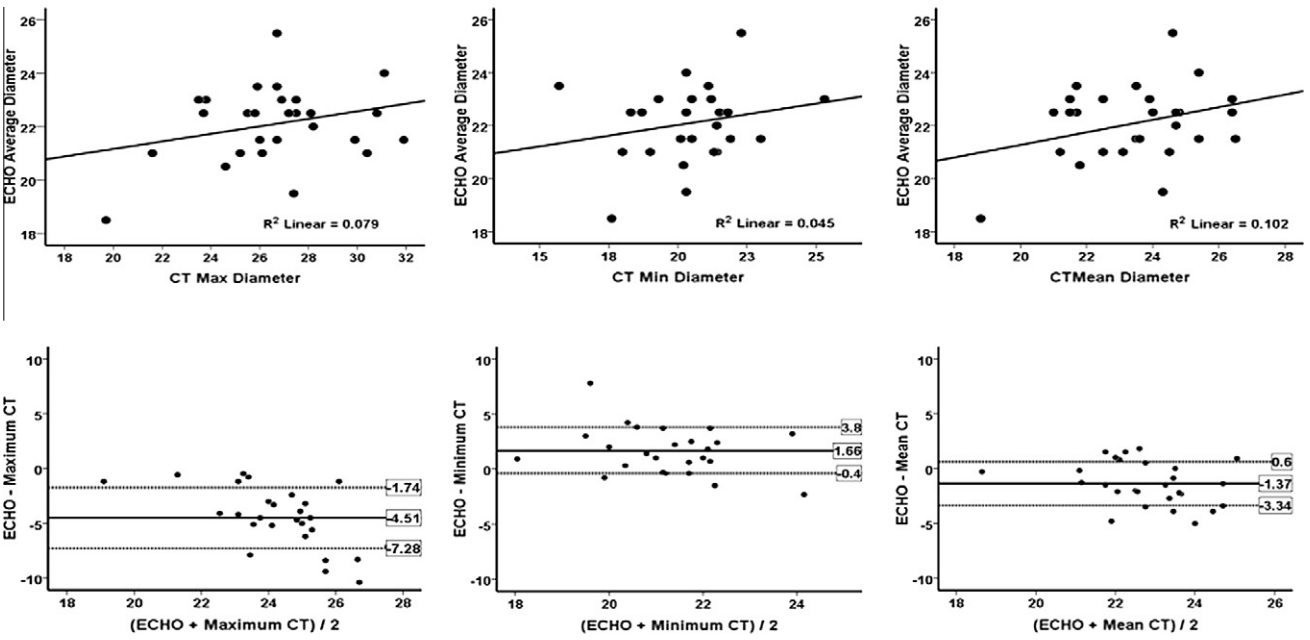

Figure 2.

significantly decreased from 6.1 ± 0.8 to 5.7 ± 0.7 cm in BMSC, $P < 0.028$ while no changes occurred in the control group from 6.7 ± 1.0 to 6.6 ± 1.1 cm, PNS. No changes occurred in LVEDD from 7.1 ± 0.9 to 6.9 ± 0.7 cm in BMSC and from7.6 ± 1.1 to 7.56 ± 1.1 cm in control, PNS for both. No significant changes in LVEF occurred in control (26 ± 6 to 27 ± 7% PNS), while a trend for improvement occurred BMSC from 29 ± 6 to 33 ± 10%, $P < 0.059$. Mitral S wave showed trend for increase in MBSC (from 4.8 ± 1.5 to 5.3 ± 1.2 cm/s $P < 0.058$ while no changes occurred in control (5.2 ± 1.7 to 5.2 ± 1.5 cm/s). Mitral E wave showed non-significant increase from 5.7 ± 2.5 to 6.3 ± 2.6 cm/s in BMSC, non-significant decrease was noticed in control from 7.6 ± 2.4 to 7.1 ± 2.7 cm/s, PNS for both. There was no procedure related morbidity or mortality in the BMSC group.

Conclusion: On top of standard and maximum tolerated medical treatment for chronic systolic HF, the addition of intracoronary autologous BMSC is feasible, safe and associated with subjective and objective functional improvement with trend towards improvement in parameters of LV performance.

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Prognostic significance of high sensitivity C-reactive protein in patients with angina pectoris underwent percutaneous coronary intervention

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Background: C-reactive protein is an easily measurable acute phase reactant synthesized by hepatocytes in response to pro-inflammatory cytokines. Elevated CRP has been identified as a strong predictor of prognosis in healthy individuals, in patients with stable angina, in unstable angina and in patients after acute myocardial infarction. The prognostic significance of high sensitivity CRP level in percutaneous coronary intervention is unclear.

Methods: We prospectively studied 41 patients with chronic stable angina (28 patients) and unstable angina (13 patients) who underwent elective coronary stenting. All patients had normal troponin level before the procedure. Blood samples for hs-CRP were obtained before the procedure, 24 h after the procedure. Patients followed up at 1 month and after 2 years.

Results: Mean hs_CRP before the procedure in all patients underwent PCI was 2.38 ± 2.21 μg/ml. The mean hs_CRP 24 h post procedure was 7.43 ± 10.6 μg/ml .There was significant difference between pre procedural hs-CRP and 24 h post procedural ($P = 0.007$). At follow up period (1 month), no major adverse cardiac events (MACE) have occurred. However, 24 patients complain of chest pain. There was no significant correlation between either pre-procedural, or 24 h post procedure hs-CRP and chest pain ($r = 0.13, 0.2$, respectively). At follow up period (2 years), 7 cases missed; MACE has occurred in 13 patients.

Conclusion: Mechanical disruption of atherosclerotic plaque during elective coronary stent implantation causes a systemic inflammatory response. Measuring of hs-CRP either pre-procedural or post procedural in low risk patients is not useful for predicting of either early or late cardiovascular events.

1. *Introduction*:

C - reactive protein (CRP) is an acute phase reactant that responds as a sensitive, though non specific marker of systemic inflammation. This protein is synthesized by the liver in response to stimuli from circulating inflammatory cytokines. CRP has traditionally been used as a systemic marker of infection and tissue injury [1].

C-reactive protein has been identified as a strong predictor of prognosis in healthy individuals [2,3], in patients with stable angina [4–7] and unstable angina [8–13], and in patients after an acute myocardial infarction [14,15].

Percutaneous coronary intervention (PCI) with stent implantation is a mainstay in the management of severe coronary artery atherosclerotic disease. Indeed, PCI currently outperforms coronary artery bypass grafting, and the use of interventional procedures is projected to increase even more with the adoption of new-generation drug-eluting stents [16].

Several studies have examined the prognostic role of CRP levels after elective or emergent PCI with a positive prognostic impact. On the other hand, other interventional studies failed to show a significant correlation between CRP levels and recurrent events or re-stenosis after elective or emergent PCI.

Increased C-reactive protein may become an important factor in pre-procedural risk stratification. As an independent marker for the rapid progression of atherosclerosis or the presence of an increased risk of subsequent adverse clinical outcome, increased C-reactive protein may identify high-risk patients as candidates for high dose lipid lowering therapy and treatment with ACE inhibition [17].

The aim of this study is to assess the hs-CRP value and its prognostic significance in long term follow up after PCI.

2. *Methods*:

From March 2008 to March 2009, 41 patients, 28 of them with the diagnosis of chronic stable angina and 13 with the diagnosis of unstable angina were